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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,816	11/27/2001	O-Ok Park	HYLEE59.001APC	9730

20995 7590 04/22/2005

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EXAMINER
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THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/995,816

Applicant(s)

PARK ET AL.

Examiner

Camie S. Thompson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on AfterFinal Amendment filed 8/30/04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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**DETAILED ACTION**

1. Examiner regrets the untimely reopening of prosecution.
2. Applicant's amendment and accompanying remarks filed August 30, 2004 have been acknowledged.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is rendered indefinite because it is unclear whether the claim is presently presented or currently amended. Lines 15-17 of claim 2 recites a currently amended claim 2.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

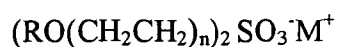
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 1-8, 11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Cao, U.S. Patent Number 5,965,281.

Cao discloses an electroluminescent device comprises a transparent substrate, an anode and active layer comprising an electrically active polymer and a cathode (see column 10, lines 15-50). Additionally, the Cao reference discloses that the device can comprise an electron injection layer and the anode can serve as a hole injection layer when the work function is above 4.5 eV (see column 4, lines 10-12 and column 10, lines 15-21). Column 4, lines 10-12 of the reference discloses that the device can comprise mixtures of the electrically active polymer and additive in the active layer (luminescent layer) or in the electron injecting layer. Column 6, line 48-column 7, line 35 of the Cao reference discloses polymers such as anthracene, rubene, poly(p-phenylene vinylene), polyarylenes that can be used in the active layer. Column 7, line 36-column 8, line 37 of the reference discloses an additive that can be used in the electron injection layer that has at least one block of  $[O-(CH_2)_x]_y$  wherein x and y are integers equal to or greater than 2 and movable ion and a non-movable ionic moiety such as



Wherein R can be an alkylaryl; M is a cation and n is an integer from 2 to 40. Also, the reference discloses that the anode can include materials such as indium tin oxide, lead oxide, doped polyaniline or doped polypyrrole (see column 10, lines 15-35). Also, the reference discloses that the anode layer is semitransparent. It is disclosed in column 10, lines 39-50 that the cathode comprises materials that include aluminum, silver, copper or indium. Example 1 of the Cao reference discloses a glass substrate.


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***Response to Arguments***

7. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L. Dye, can be reached at (571) 272-3186. The fax phone number for the Group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
RENA DYE  
SUPERVISORY PATENT EXAMINER 4/14/05  
A.U. 1774